Univar USA Inc.
6100 Carillon Point
Kirkland, WA 98033
(425) 889-3400

For Emergency Assistance involving chemicals call - CHEMTREC (800) 424-9300

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The Version Date for this MSDS is : 02/02/2004

PRODUCT NAME: UNIVAR CITRI CLEANER

MSDS NUMBER:
US000264

EFFECTIVE DATE:
1/28/2004

SUPERSEDES:
NEW

ISSUED BY:
000099

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Id:
US000264

Product Name: Univar Citri Cleaner

Synonyms:

None

Chemical Family: None Known

Application: Not Available.

Distributed By:
Univar USA Inc.
6100 Carillon Point
Kirkland, WA 98003,
USA.
Corporate Office Number: (425) 889-3400

Prepared By: The Safety, Health and Environment Department of Univar Canada Ltd.

Preparation date of MSDS: 01/28/2004

Telephone number of preparer: 1-866-686-4827

24-Hour Emergency Telephone Number (CHEMTREC): (800) 424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS

Ingredients	Percentage	LD50s and LC50s Route & Species:
Monoethanolamine 141-43-5	4	Dermal LD50 (Rabbit) 1 mL/kg Oral LD50 (Rat) 1720 mg/kg Oral LD50 (Mouse) 700 mg/kg

D-limonene 5989-27-5	28	Oral LD50 (Rat) 4400 mg/kg Oral LD50 (Mouse) 5600 mg/kg Dermal LD50 (Rabbit) 5 g/kg
Alkyl benzenesulfonic acid 68584-22-5	8	Not available.
Butyl Carbitol 112-34-5	4	Oral LD50 (Mouse) 2400 mg/kg Dermal LD50 (Rabbit) 2700 mg/kg Oral LD50 (Rat) 5660 mg/kg
C10-C16 - Ethoxylated Alcohol 68002-97-1	4	Dermal LD50 (Rabbit): >2000 mg/kg Inhalation LC50 (Rats): 5.7 mg/l Oral LD50 (rat): 1840 mg/kg
Trisodium hydroxyethylethylenediaminetriacetate 139-89-9	1.9	Not available.
Butylated Hydroxy Toluene 128-37-0	0.1	Oral LD50 (Mouse) 650 mg/kg Oral LD50 (Rat) 890 mg/kg
Sulphuric Acid 7664-93-9	0.1	Oral LD50 (Rat) 2140 mg/kg Inhalation LC50 (Mouse) 320 mg/m3 Inhalation LC50 (Rat) 510 mg/m3
Sodium glycolate	0.1	Oral LD50 (Mouse) 6700 mg/

kg
2836-32-0 Oral LD50 (Rat) 7110 mg/
kg

Disodium 0.1 Not
available.
hydroxyethylethylenediaminediacetate
62099-15-
4

Trisodium nitrilotriacetate 0.05 Oral LD50 (Rat) 1100 mg/
kg
5064-31-3 Oral LD50 (Mouse) 681 mg/
kg

Sodium Hydroxide 0.05 Oral LDLo (Rabbit) : 500mg/
kg
1310-73-
2

NON-HAZARDOUS
COMPONENTS

Ingredients Percentage LD50s and LC50s Route &
Species:

Water 49.7 Not
available.
7732-18-
5

Notes: No additional
remark.

3. HAZARDS
IDENTIFICATION

Potential Acute Health
Effects:

Eye Contact: Causes moderate to severe irritation, experienced as
discomfort
or pain, excess blinking and tear production, with marked excess redness
and
swelling of the
conjunctiva.

Skin Contact: Causes local discomfort or pain, severe excess redness and swelling, tissue destruction, fissures, ulceration, and possibly bleeding into the injured area. Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis). Prolonged or widespread contact may result in the absorption of potentially harmful amounts of material.

Inhalation: May cause irritation of the respiratory tract, experienced as nasal discomfort and discharge, coughing, and possibly accompanied by chest pain. Prolonged exposure may cause injury to the respiratory tract.

Ingestion: Harmful if swallowed. Causes burns to the mouth, throat and stomach. May cause dizziness, drowsiness, faintness, weakness, collapse, and coma. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.

4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.

Inhalation: Remove person to fresh air. If not breathing, give artificial

respiration. If breathing is difficult, get immediate medical attention.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Notes To Physician: Treatment based on sound judgment of physician and individual reactions of patient. Due to the irritant nature of the material, the stomach should be evacuated carefully in cases of poisoning by swallowing.

5. FIRE FIGHTING MEASURES

Flash Point: 43 deg C / 109 deg F (D'Limonene)

Flash Point Method: Closed cup.

Autoignition Temperature: Not Available.

Flammable Limits in Air (%): Not applicable.

Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.

Special Exposure Hazards: Emits toxic fumes under fire conditions. Use water spray to cool fire-exposed containers and structures. Do not direct a solid stream of water or foam into burning molten material; this may cause spattering and spread the fire. Spray extinguishing media directly into base of the

flames.

Special Protective Equipment: Fire fighters should wear full protective clothing, including self-contained breathing equipment.

NFPA RATINGS FOR THIS PRODUCT ARE: HEALTH 0, FLAMMABILITY 2, REACTIVITY 0

HMIS RATINGS FOR THIS PRODUCT ARE: HEALTH 0, FLAMMABILITY 2 , REACTIVITY 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear appropriate protective equipment.

Environmental Precautionary Measures: Prevent entry into sewers or streams, dike if needed. Monoethanolamine is toxic to aquatic life at relatively low concentrations in water.

Procedure for Clean Up: Ventilate area. Absorb with an inert dry material and place in an appropriate waste disposal container. Flush area with water to remove trace residue. Spilled material may cause floors and contact surfaces to become slippery.

7. HANDLING AND STORAGE

Handling: Use with adequate ventilation. Protect from freezing. Keep the containers closed when not in use. Avoid excessive heat Avoid contact with eyes, skin and clothing. Avoid breathing vapor. Do not ingest. Use good

personal
hygiene.

Storage: Store in accordance with good industrial practices. STABILITY
-
Monoethanolamine and iron form a complex molecule, trisethanolamino-
iron.
This material can spontaneously decompose at temperatures between 130
deg
and 160 deg C, and has been suspected of causing a fire in a nearly
empty
storage tank containing a 'heel' of MEA in contact with carbon steel
steam
coils. If steam coil heating is used, low pressure steam in stainless
steel
coils is preferred. Since this same mechanism may occur in drums, take
care
when thawing drummed MEA with heating coils and maintain temperature
below
130 deg
C.

8. EXPOSURE CONTROLS/PERSONAL
PROTECTION

Engineering Controls: General (mechanical) room ventilation is expected
to
be
satisfactory.

Respiratory Protection: If exposure exceeds occupational exposure
limits,
use an appropriate NIOSH-approved respirator. Organic vapor respirator.
For
high airbourne concentrations, use a NIOSH -approved supplied-
air
respirator, either self-contained or airline breathing apparatus,
operated
in positive pressure
mode.

Gloves: Polyvinylchloride gloves. Oil-resistant gloves. Impervious
gloves.

Skin Protection: Skin contact should be prevented through the use
of
suitable protective clothing, gloves and footwear, selected for

conditions
of use and exposure potential. Consideration must be given both
to
durability as well as permeation
resistance.

Eyes: Chemical goggles; also wear a face shield if splashing hazard
exists.

Other Personal Protection Data: Ensure that eyewash stations and
safety
showers are proximal to the work-station
location.

Ingredients	Exposure Limit - ACGIH	Exposure Limit - OSHA	Immediately Dangerous to Life or Health - IDLH
Monoethanolamine	3 ppm TLV-TWA 6 ppm STEL	15 mg/m3 STEL 3 ppm 6 ppm STEL 8 mg/m3 TWA	30 ppm TWA
D-limonene	Not available.	Not available.	Not Available.
Alkyl benzenesulfonic acid	Not available.	Not available.	Not available.
Butyl Carbitol	Not available.	Not available.	Not available.
C10-C16 - Ethoxylated Alcohol	Not available.	Not available.	Not available.

Trisodium hydroxyethylethylenediaminetriacetate	Not available.	Not available.	Not available.
Butylated Hydroxy Toluene	2 mg/m3 TLV-TWA	10 mg/m3 TWA	Not Available.
Sulphuric Acid	1 mg/m3 TLV-TWA 3 mg/m3 STEL	1 mg/m3 TWA	15 mg/m3
Sodium glycolate	Not available.	Not available.	Not available.
Disodium hydroxyethylethylenediaminediacetate	Not available.	Not available.	Not available.
Trisodium nitrilotriacetate	Not available.	Not available.	Not available.
Sodium Hydroxide	2mg/m3Ceiling	2 mg/m3 Ceiling	10 mg/m3

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:
Liquid

Color:
Colourless

Odor: Mild.
Citrus.

pH Not
Available.

Specific Gravity: 0.84 -
1.29

Boiling Point: Not

Available.

Freezing/Melting Point: Not
Available.

Vapor Pressure: Not
Available.

Vapor Density: Not
Available.

% Volatile by Volume: Not
Available.

Evaporation Rate: Not
Available.

Solubility:
Soluble.

VOCs (lbs/gallon): Not
Available.

Viscosity: Not
Available.

Molecular Weight: Not
Available.

10. STABILITY AND
REACTIVITY

Chemical Stability:
Stable.

Hazardous Polymerization: Will not
occur.

Conditions to Avoid: Keep away from heat, sparks and flame. Avoid hot work
and sources of ignition on or near empty
containers.

Materials to Avoid: Aldehydes. Strong oxidizing agents. Strong acids.
Ketones. Acrylates. Organic halides. Organic anhydrides. Formates.

Lactones.
Oxalates. Strong bases.
Alkalies.

Hazardous Decomposition Products: Oxides of nitrogen. Oxides of sulfur.
Oxides of carbon. Smoke. Unidentified organic compounds.

Additional Information: No additional remark.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Ingestion: Harmful if swallowed. Causes burns to the mouth, throat and
stomach. May cause dizziness, drowsiness, faintness, weakness, collapse, and
coma. Aspiration into the lungs may occur during ingestion or vomiting,
resulting in lung injury.

Skin Contact: Causes local discomfort or pain, severe excess redness and
swelling, tissue destruction, fissures, ulceration, and possibly bleeding
into the injured area. Frequent or prolonged contact may irritate the skin
and cause a skin rash (dermatitis). Prolonged or widespread contact may
result in the absorption of potentially harmful amounts of material.

Inhalation: May cause irritation of the respiratory tract, experienced as
nasal discomfort and discharge, coughing, and possibly accompanied by chest
pain. Prolonged exposure may cause injury to the respiratory tract.

Eye Contact: Causes moderate to severe irritation, experienced as discomfort

or pain, excess blinking and tear production, with marked excess redness and
swelling of the
conjunctiva.

Additional
Information:

Repeated overexposure may cause liver and kidney
effects.

Acute Test of
Product:

Acute Oral LD50: Not
Available.

Acute Dermal LD50: Not
Available.

Acute Inhalation LC50: Not
Available.

Carcinogenicity:

Ingredients	IARC - Carcinogens	ACGIH - Carcinogens
Monoethanolamine	Not listed.	Not listed.
D-limonene	Group 3	Not listed.
Alkyl benzenesulfonic acid	Not listed.	Not listed.
Butyl Carbitol	Not listed.	Not listed.
C10-C16 - Ethoxylated Alcohol	Not listed.	Not listed.
Trisodium	Not listed.	Not listed.

hydroxyethylethylenediaminetriacetate

Butylated Hydroxy Toluene	Group 3	A4 - Not Classifiable as a Human Carcinogen
Sulphuric Acid	Group 1	A2 - Suspected Human Carcinogen (contained in strong inorganic acid mists)
Sodium glycolate	Not listed.	Not listed.
Disodium hydroxyethylethylenediaminediacetate	Not listed.	Not listed.
Trisodium nitrilotriacetate	Not listed.	Not listed.
Sodium Hydroxide	Not listed.	Not listed.

Carcinogenicity Comment: No additional information available.

Genotoxicity: Not Available.

Reproductive Toxicity/ Teratogenicity/ Embryotoxicity/ Mutagenicity: Not Available.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

Monoethanolamine
LC50 (goldfish) 170.0 mg/ L

LC50 (fathead minnow) 2070 mg/
L

D-
limonene
LC50 (fathead minnow) 702 mg/
L

Butyl
Carbitol
LC50 (bluegill) 1300 mg/
L
LC50 (goldfish) 2700 mg/
L

Butylated Hydroxy
Toluene
LC50 (killifish) 2.5 mg/
L

Sodium
Hydroxide
LC50 (Rainbow Trout) 1149 mg/
l
LC50 (Chinook Salmon) 152 mg/
l

Other Information: No additional
remark.

13. DISPOSAL
CONSIDERATIONS

Disposal of Waste Method: Disposal of all wastes must be done in
accordance
with municipal, provincial and federal
regulations.

Contaminated Packaging: Empty containers should be recycled or disposed
of
through an approved waste management
facility.

14. TRANSPORT
INFORMATION

DOT (U.
S.):

DOT Shipping Name: CORROSIVE LIQUIDS, N.O.S. (Dodecylbenzene Sulfonic
Acid,
Monoethanolamine)

DOT Hazardous Class
8

DOT UN Number:
UN1760

DOT Packing Group:
III

DOT Reportable Quantity (lbs):
1000

Marine Pollutant:
No.

15. REGULATORY
INFORMATION

U.S. TSCA Inventory Status: All components of this product are either
on
the Toxic Substances Control Act (TSCA) Inventory List or
exempt.

Canadian DSL Inventory Status: All components of this product are either
on
the Domestic Substances List (DSL) or the Non-Domestic Substances
List
(NDSL) or
exempt.

U.S. Regulatory
Rules

Ingredients	CERCLA/SARA - Section 302:	CERCLA/SARA - Section 313:
Monoethanolamine	Not Listed.	Not Listed.
D-limonene	Not Listed.	Not

Listed.

Alkyl benzenesulfonic acid	Not Listed.	Not Listed.
Butyl Carbitol	Not Listed.	LISTED
C10-C16 - Ethoxylated Alcohol	Not Listed.	Not Listed.
Trisodium hydroxyethylethylenediaminetriacetate	Not Listed.	Not Listed.
Butylated Hydroxy Toluene	Not Listed.	Not Listed.
Sulphuric Acid	LISTED	LISTED
Sodium glycolate	Not Listed.	Not Listed.
Disodium hydroxyethylethylenediaminediacetate	Not Listed.	Not Listed.
Trisodium nitrilotriacetate	Not Listed.	Not Listed.
Sodium Hydroxide	Not Listed.	Not Listed.

California Proposition 65: Not Listed.

MA Right to Know List: Listed.

New Jersey Right-to-Know List: Listed.

Pennsylvania Right to Know List:
Listed.

WHMIS Hazardous
Class:
B3 COMBUSTIBLE
LIQUIDS
D1B TOXIC
MATERIALS
D2B TOXIC
MATERIALS
E CORROSIVE
MATERIAL

16. OTHER
INFORMATION

Additional
Information:
This product has been classified in accordance with the hazard criteria
of
the Canadian Controlled Products Regulations (CPR) and the MSDS contains
all
the information required by the
CPR.

For Additional Information:
Contact: MSDS Coordinator - Univar USA
During business hours, Pacific Time - (425) 889-3400

NOTICE
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END OF MSDS